

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Kazuyoshi Inoue et al.

Examiner: Michael A. Band

Serial No.: 10/594,756

Group Art Unit: 1795

Filed: September 29, 2006

Confirmation No.: 4694

Title: INDIUM OXIDE-CERIUM OXIDE BASED SPUTTERING TARGET,
TRANSPARENT ELECTROCONDUCTIVE FILM, AND PROCESS FOR PRODUCING A
TRANSPARENT ELECTROCONDUCTIVE FILM

NON-COMPLIANT RESPONSE

Mail Stop: APPEAL BRIEF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Further to the Notice of Non-Compliant Appeal Brief dated May 13, 2011, Appellants submit herewith a new "Claims Appendix".

In the enclosed replacement claims appendix, withdrawn claims 6-9 which are not on appeal are omitted. Although the Notice of Non-Compliance requested claim identifiers, this is not proper in a claims appendix with a Brief.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,
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(viii) CLAIMS APPENDIX

1. A sputtering target comprising indium oxide and positive trivalent cerium oxide, wherein $[Ce]/([In] + [Ce]) = 0.005$ to 0.035 wherein $[Ce]$ represents the number of the atoms of cerium per unit weight/unit mass, and $[In]$ represents the number of the atoms of indium per unit weight/unit mass, and wherein the abundance of trivalent cerium $[Ce^{+3}]/([Ce^{+3}] + [Ce^{+4}])$ is 0.01 to 0.6 , wherein when its crystal peaks are observed by X-ray diffraction, the presence of peaks originating from indium oxide and cerium oxide is observed, and

further when EPMA measurement is performed, the measured diameter of particles of cerium oxide dispersed in indium oxide is $5\text{ }\mu\text{m}$ or less.

2. The sputtering target according to claim 1, wherein when the EPMA measurement is performed, the presence of the cerium oxide particles, which are cerium oxide particles, dispersed in indium oxide and having a diameter of $1\text{ }\mu\text{m}$ or more is observed.

4. The sputtering target according to claim 1, comprising indium oxide and cerium oxide, and having a density of 6.6 g/cc or more and a bulk resistance of $1\text{ m}\Omega\text{cm}$ or less.